



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

MAY 14 1996

OFFICE OF  
SOLID WASTE AND EMERGENCY RESPONSE

Note to: Elliott P. Laws

Subject: Consistency in EPA Requirements for Ground-Water  
Cleanup

In a May 7, 1996 meeting, Ramona Trovato of the Office of Indoor Air and Radiation (ORIA) briefed Office Directors and staff from OSWER, OECA, OGC, OW and OPPTS concerning their proposed regulation for clean up of radiation sites and changes in the rule requested by other federal agencies. ORIA also wanted to make sure that:

- ◆ Appropriate Agency AAs are aware of some of the issues raised by DOE, NRC and OMB regarding ORIA's proposed rule for cleanup of radiation sites; and
- ◆ EPA programs are consistent in their regulatory approach to ground-water cleanup -- specifically, ground waters that are a current or potential source of drinking water are cleaned up to drinking water standards.

Mary Nichols is likely to request your support in asking the Administrator to intervene with DOE and OMB. Also, ORIA would like your support in clarifying that changes these agencies are requesting are inconsistent with existing environmental statutes and EPA regulations for clean up of contaminated ground water.

BACKGROUND

At the request of DOE, ORIA has developed "Radiation Site Cleanup Regulations" under the regulatory authority provided in the Atomic Energy Act. The rule was submitted to OMB and other federal agencies for review on March 15, 1996. **This rule applies only to portions of federal facilities to be released for public use.** ORIA has been coordinating with OERR to make sure their rule is consistent with cleanup requirements for CERCLA sites. The proposed rule has two separate cleanup requirements:



- ◆ Overall site risk standard -- cleanup actions must reduce contamination to the extent that the radiation dose from all exposure pathways, including ground water, is less than 15 mrem per year, above the background dose. (This corresponds to an excess cancer risk of  $3 \times 10^{-4}$ .)
- ◆ Ground-water standard -- ground water that is a current or potential source of drinking water must be cleaned up to MCLs or to background levels, whichever are higher. If cleanup to such levels is technically impracticable, control measures and public comment are required.

For Superfund sites, cleanup requirements for contaminated ground water are stated in Section 121 (d) of the statute, as follows:

"...remedial action shall require a level or standard of control which at least attains Maximum Contaminant Level Goals established under the Safe Drinking Water Act and water quality criteria established under section 304 or 303 of the Clean Water Act, where such goals or criteria are relevant and appropriate under the circumstances of the release."

#### ISSUES RAISED

The following issues were raised by DOE and NRC and are of concern to Superfund:

**Issue 1:** A separate ground-water standard is not needed. The ground-water pathway is included in the overall risk standard, which is sufficiently protective.

**EPA Response:** The risk standard alone is not sufficiently protective, because it would allow people to drink ground water with levels of contamination above the MCLs. Also, this approach is inconsistent with CERCLA, which specifically requires cleanup to MCLs.

**Issue 2:** The overall dose standard should be increased from 15 to 25 mrem per year (or higher), because the costs to attain 15 are much higher and the additional cancer risk is very small. (Risk would increase from  $3 \times 10^{-4}$  to  $5 \times 10^{-4}$ .)

**EPA Response:** The 15 mrem/yr dose standard is consistent with several other radiation rules promulgated by EPA. A higher dose standard would be even further outside the risk range used to

determine the protectiveness of CERCLA remedies, which would invite public concern over the protectiveness of cleanup actions at radiation sites.

The following issue was raised by OMB:

Issue 3: EPA should compare "discounted lives" to discounted costs in the RIA (i.e., future lives have less present worth than current lives).

**EPA Response:** This conflicts with EPA practice and with common sense. Do we, as a society, tend to place less value on our children or on future generations? Using a discount rate of 7 percent, a person born 20 years from now has one-quarter the economic value of a person born today.

#### CONCLUSION

Cleanup requirements for contaminated ground water should be consistent across EPA programs. The ground-water provisions of ORIA's proposed rule are consistent with those for CERCLA sites. The changes requested by OMB and NRC are inconsistent with CERCLA and the NCP.

For questions concerning this memorandum contact Ken Lovelace of OERR at (703) 603-8787, or Paul Conner of OSRE at (202) 564-5114.



Stephen D. Luftig

cc: Steve Herman, OECA  
 Tim Fields, OSWER  
 Mike Shapiro, OSWER/OSW  
 Jim Woolford, OSWER/FFRRO  
 Jerry Clifford, OECA/OSRE  
 Barry Breen, OECA/FFEO  
 Ramona Trovato, OAR/ORIA  
 George Wyeth, OGC  
 Betsy Shaw, OSWER/OERR  
 Paul Nadeau, OSWER/OERR  
 Peter Tsirigotas, OECA/OSRE  
 Paul Conner, OECA/OSRE  
 Ken Lovelace, OSWER/OERR